Projected Works.—Advertisements have been issued for tenders, by 5th instant, for the erection of prison cells, dwelliog-houses, &c. at Gravesend; by 15th, for 70 tons of iron rails for the West Cornwall Railway; by 5th, for 500 tons blue Guernsey granite; by a date not specified, for the erection of a tavern at Peckham: and by 6th, for building sewers in various streets at Birmingham.

Railway Compensation Cases.—At the Borough Court, Bradford, the magistrates were recently called on to award compensation to occupants of houses in Goodmansend required by the Lancashire and Yorkshire Railway Company. The first case was that of Mrs. Stell, for the "Moulders' Arms" beer-house, her interest in which the company estimated at 30*l.* for three months' loss of business, but had offered 40*l.* In cross-examination of the occupant, "Mr. Higham asked her if she had not been convicted by the magistrates for keeping a disorderly house. Mr. Bond strongly disclaimed the imputation as most atrocious, because it was intended by it to punish twice, and he declared that none but a railway company, who had neither a soul to save nor any thing behind to kick, would so boldly have dared to injure a poor woman." Mr. Bond estimated the loss to the occupant at sixty guineas on twelve months—the question turning on the terms of the widow's occupancy. The magistrates awarded 70*l.*, each party to pay their own expenses, but Mrs. Stell to take the fixtures. Several other cases were settled amicably, though much higher terms were asked, and much lower offered. The good-will and interest in a grocer's shop amounted to 110*l.*, and in other premises in same vicinity to 22*l.* 10s.

Smoky Chimneys.—With reference to smoky chimneys, the cause is frequently in the bricklayer not starting his *gathering* at the proper place: the gathering should start not less than 6 inches *below the underside of the chimney bar*, and should not gather less than 2½ inches every course of bricks, until the gathering is brought to the exact size of the flue, the flue being in the centre of the breast. Build 1 foot perpendicular: you may then start your flue either right or left, which you think most proper to the entrance into the room, as also to the section of chimneys. Avoid all elbows; give easy curves and slopes. In fixing chimney-pots or moulds, the flues should be to the exact size of the pot or mould, whether it be round or square; and the formation should commence not less than 1 foot 6 inches below the seat of the pot or mould: this is also very essential to prevent any obstruction at the mouth of the shaft. If not so formed, it is more than probable that there may be a check, and so prevent the rapid current it otherwise would have. The usual way in which bricklayers start their gatherings is from the top of the arch, 15 inches higher than they ought to do; this causes two air chambers, one on each side. I have proved beyond doubt that 1 inch gathering below the breast of a chimney is worth three above the chimney bar.—J. B. H.

Midland Mechanics' Institutes, &c.—The anniversary of the Midland Association of Mechanics' and other literary institutions, was held at Nottingham, on Tuesday last, Mr. J. E. Denison, M.P., and afterwards Mr. Walter, M.P., in the chair. Mr. Denison first addressed the meeting, and was afterwards followed by Mr. Walter, in an eloquent speech, which he summed up by saying—"Remember that the true object of this and all similar institutions is to train the mind to habits of thoughtfulness and patient industry; not to impart to it a mere smattering of all sorts of knowledge, which is only another name for conceit. Whatever progress you make in the difficult path of self-improvement, remember that it must be the effect of your own individual exertion, just as if no institution of this kind existed to assist you. Century after century may mount higher in the lofty regions of science; discoveries which our forefathers would have ascribed to witchcraft, and which appear like magic to ourselves, will fail to excite the least surprise in the minds of our immediate descendants; but there is no royal road to self-improvement and self-discipline: each individual must work out for himself that difficult problem, and stand or fall by the result."

A Family Fire Escape.—In order to prevent the awful sacrifice of life which so frequently occurs from fire, it seems desirable that Government should offer a handsome reward to the inventor of a fire escape, which, by the simplicity of its machinery, and the lowness of its price, would be available for all classes. I mean an apparatus that every family could possess. If, however, the Government decline encouraging so laudable an object, I am sure the public would respond to any call that might be made upon them, to testify their gratitude for ingenuity so applied, and I would therefore suggest that mechanics should (if only on the ground of humanity), direct their best attention to this subject, and do their utmost to produce an apparatus which should be among the "lions" of the proposed national exhibition of 1851.—P. W. H.

Increase of Iron Business in Wales.—The population during forty years, from 1801 to 1841, increased in Newport from 1,423 to 13,766; in Trevethin, from 1,742 to 14,942; Aberystwith, from 805 to 11,272; Bedwelty, from 619 to 22,413. In Glamorgan the increase has also been enormous. In 1820, the iron sent from the worker for shipment to Newport, was 45,462 tons; in 1847, 240,637. The quantity at Cardiff, in 1820, was 50,157 tons; in 1847, it was 220,953. The coal sent in 1846 from Cardiff, Swansea, Llanelly, and Newport, amounted to 1,847,318 tons. The shipment of iron alone from the counties of Monmouth, Glamorgan, and Carmarthen, was estimated, in 1847, at 4,000,000*l.* sterling.

Fire at Whitechapel Baths and Washhouses.—On 27th inst., a fire, originating in a temporary wooden dryinghouse, rapidly consumed that structure, and spread to the roof and fittings of the washhouse. The hon. secretaries have written to the *Times*, explaining that the property destroyed is amply covered by insurance. Unfortunately, however, this will not prevent additional delay in the completion of an establishment which appears to be doomed to suffer a succession of fatalities or hindrances to its ultimate utility to the public.

Preservation of Wood from Worms, Fire, &c.—M. Louis Vernet, Buenos Ayres, has enrolled a patent specification for a method of preserving from destruction by worms, insects, decay, and fire, certain vegetable and animal substances. To preserve timber from fire, it is to be impregnated with a solution of 1 lb. of arsenic, 6 lbs. of alum, and 10 lbs. of potass, in 40 gallons of water. To preserve timber immersed in water from decay, and the ravages of the worm, it is to be painted over with the solution mixed with oil or any suitable tarry matters.

Vastness of Railway Works.—The great Pyramid of Egypt was, according to Diodorus Siculus, constructed by 300,000—according to Herodotus, by 100,000 men; it required for its execution twenty years, and the labour expended on it has been estimated as equivalent to lifting 15,733,000,000 (fifteen thousand seven hundred and thirty-three millions) of cubic feet of stone, one foot high. Now, in the same measure, if the labour expended in constructing the *southern* division only of the present London and North-Western Railway be reduced to one common denomination, the result is 25,000,000,000 (twenty-five thousand millions) of cubic feet of similar material lifted to the same height, being 9,267,000,000 (nine thousand two hundred and sixty-seven millions) of cubic feet *more* than was lifted for the Pyramids, and yet the English work was performed by about 20,000 men only, in less than five years.—*Sir F. Head.*

Tables for Setting out Curves.—Messrs. Archibald Kennedy and R. W. Hackwood have recently published in the smallest possible form (a waistcoat-pocket edition), a series of tables for setting out curves, which will be found very useful by the profession.* They contain, *ready calculated*, all the dimensions required for setting out curves varying from a radius of five chains to three miles, according to either of the three most generally employed methods of performing the operation. Accuracy is the great point to be achieved in these matters, and this seems to have been carefully striven for.

* "Tables for setting out Curves for Railways, Canals, Roads, &c., either with or without a Theodolite." London: 1849. Weale.

The Perpetual Problem again.—Mr. George Murrell, a wheelwright, at Upwell, says the *Worcester Journal*, "professes to have discovered the means of putting a machine together that will drive itself; that is, requires no motive power of any kind, neither steam, water, nor hand, but is a mere combination of wheels, that, once set agoing, will never stop unless thrown out of gear, or worn out by friction. *He is very sanguine* of success, and says, that *before many weeks have elapsed*," &c. &c.—the old story. It is odd we never hear how matters *have* turned out when the brief period of sanguine hope *has* elapsed.

Elizabethan Chapels.—"An Amateur" wishes to be referred to some good illustrations of an Elizabethan chapel, and to know which are the best examples of that class of buildings. So far as we are aware, no good view of any ancient Elizabethan chapel has ever been publishsd. Good examples may be seen in London. The chapel at Lambeth Palace, originally Early English, has Elizabethan fittings, but the ornamented ceiling has been removed. The chapel at Lincoln's-inn is a good example. Perhaps the best in London is the chapel at the Charter House, entirely Elizabethan: it has been enlarged by Mr. Blore. In the country there are numerous examples: that at Crewe Hall is one of the finest.

Evading the Brick Duty.—The magistrates sitting in petty sessions at Halesowen, last week, adjudicated on no fewer than ten informations against brick-makers who had defrauded the revenue by removing the bricks from the kilns without paying the duty. All the cases were made out, and fines were inflicted varying from 150*l.* to 25*l.*; while a large number of bricks were declared to be forfeited—in one instance 84,782.

Electro-telegraphic Progress.—The telegraph will shortly be open from Halifax to New Orleans throughout. Mr. W. S. Thomas, of Norwich, New York, has invented a telegraphic "manipulator," which is said to "transcribe the 'lightning,' writing as fast as the apparatus can turn out the paper."

The Architectural Character of the Age.—The political condition of our day is *a war of great principles*. As heterogeneous in its character is Art among us. Here we have an imitation of the antique, there a revival of the middle ages, while sculpture itself is sometimes compelled to relax its severity, and copy the rude attire of our northern yeomen. By what term could we describe the architecture of the day? In our rising cities we find a Gothic church close to a Byzantine fane or an Italian basilica, and in their immediate neighbourhood a town-hall like a Greek temple, a mansion like a Roman palace, and a club-house after the fashion of Louis XIV. The age in which we live may have a character of its own; but that character is not written in its face.—*Edinburgh Review.*

Cost of Prison Accommodation.—The sums hitherto expended on prison buildings have in some cases been enormous. The cost is seldom less than 100*l.* or 150*l.* per prisoner (a sum sufficient for building two or three neat cottages, each able to contain a whole family), and in some instances it has been much more. A portion only (the newest) of the county prison at York, capable of accommodating only 160 prisoners, cost 200,000*l.*, which is more than 1,200*l.* per prisoner; enough, if it had been desired, to build for each prisoner a separate mansion, with stable and coach-house. —*Fourteenth Report of Prison Inspectors.*

BUILDINGS AND MONUMENTS,

MODERN AND MEDIÆVAL.

Edited by Geo. Godwin, F.R.S.,

Fellow of the Institute of Architects; Corresponding Member of several Societies.

Part IV. of this work, price 2s. 6d., containing Views of Ware Church, Hertford; Hungerford and Lambeth Suspension-bridge; New Front of Buckingham Palace; Fire-place in the Palace of the Dukes of Burgundy, at Dijon; All Saints' Church, St. John's Wood; the Interior of the House of Lords—the Throne, the Victoria Lobby, the Reporters' Gallery, and Ground-plan; with descriptive letter-press, and numerous details; is now ready.

Office of The Builder, 2, York-street, Covent Garden, or by order of any bookseller.

To learn more about PDF Compression and OCR go to ThePaperlessOffice.org